

Summary of ETS-PP Learning Gains Report

The ETS-PP Report is complimentary from the perspective of the 'Value-Added' to UNR students/seniors. Learning gains between UNR freshmen and seniors in Critical Thinking (+2.3) and Writing (+1.4) place UNR in Decile Group 10. That is, UNR added more to seniors' Critical Thinking and Writing abilities than 90% of the other institutions included in the model. The model uses test results from institutions whose Carnegie Classification (Res I & II) is the same as UNR's and that participated in the 2006 through 2010 testing years. Freshmen in the tested group were first-time college students. Seniors in the tested group were homegrown, i.e. each began college as a freshman at UNR.

- First, all three standardized test instruments utilize the regression methodology initiated by the Council for Aid to Education (CAE); CLA, ACT's CAAP & the ETS-PP to develop Learning Gains Reports to participating institutions. The Voluntary System of Accountability adopted this methodology to calculate learning change, i.e. Value-Added, between freshmen and seniors. This method uses the unexplained variation (residual or error) after fitting the OLS regression model developed using entrance exam scores, SAT or ACT; basically, the difference between the observed score and the expected score suggested by the regression model. In this iteration, ETS converted ACT scores provided by UNR to SAT scores for UNR's [Learning Gains Report](#). The mean SAT scores, 1055 for freshmen and 1113 for seniors, appear in the first table on UNR's Report. The mean ACT scores (not included in the ETS report), 23.22 and 23.73 for freshmen and seniors respectively, are non-significant differences.
- Second, residuals are assumed to be normally distributed (the Standard Error or SE) along the regression line such that the mean can be set at 0 with a standard deviation of 1, e.g. -1 to +1 (At Expected), -2 to -1 or +2 to +1 (Below or Above Expected) and so on. These ranges, Well Above (>+2) through Well Below (>-2), appear in the center portion of the ETS-PP Learning Gains Report.
- Third, based upon the model, the SE differences for UNR freshmen (n=428) was SE= -1.7, which placed freshmen Below Expected (between -1 & -2) on both the Critical Thinking and Writing portions of the ETS-PP. The SE differences for UNR's seniors (n=280) were SE= 0.6 and -0.3 on the Critical Thinking and Writing measures respectively. Thus, seniors' SEs were within the At Expected, -1.0 to +1.0, range on both.
- Finally for Critical Thinking, the difference in SE between freshmen and seniors was 2.3 (-1.7 to +0.6) and for Writing, the difference was 1.4 (-1.7 to -0.3). These differences, 2.3 & 1.4, estimate the Value Added by their educational experiences. In this analysis, UNR

added to seniors Critical Thinking and Writing abilities. Unfortunately, the ETS-PP is unable to specify how or when value was added, so the ETS-PP, or the other instruments provide little guidance is telling us what if anything UNR is doing specifically to enhance these abilities.

Please direct questions regarding the ETS-PP and its administration to Steve Cavote in the UNR Assessment Office, scavote@unr.edu or 784-8296.